Gulf Oil Spill Waste Management FAQs
July 28, 2010

(1) What kind of waste is being generated as a result of the Deepwater Horizon oil release?

The waste is generally classified into three categories: recyclables, municipal trash and crude oil-contaminated (oiled) waste. The recyclables and municipal trash come primarily from office buildings where BP and the Unified Command and Incident Command Posts are located, supply distribution warehouses and from response equipment and personnel field mobilization sites. Typical operations that result in crude oil-contaminated waste include shoreline cleanup, skimming, booming, and decontamination of vessels or equipment. The oiled waste may be solids or liquids. The most common waste comes from three sources: shoreline cleanup; oil containment, capture and skimming operations; and vessel and other decontamination operations.

- From shoreline cleanup: tar balls, oiled vegetation,, oiled sand, oiled debris, dead wildlife, used personal protective equipment (PPE) and disposal equipment.
- From oil containment, capture and skimming operations: oil and oily water, oiled debris and sorbent materials.
- From vessel and other decontamination operations: oily water, oiled sorbent materials and PPE.

(2) When oil is collected from the water in the Gulf of Mexico, what happens to it? How is it disposed of or treated?

Oil that can be easily separated from water is being recovered as a product and either sent to a refinery or sent to an approved facility where it is burned for its energy content in accordance with applicable Federal, State, and local laws . Oily water that is separated from the recovered oil is being sent to facilities permitted to manage liquid wastes (either deep well injection facilities or waste water treatment facilities).

The approved waste plans requires BP to recover, reuse or recycle as many of the materials collected during cleanup operations, as practicable and in accordance with applicable Federal, State, and local laws.

(3) What does BP do with oil that comes ashore or contaminates containment equipment (i.e. boom)? And what is done with the oiled material that occurs on-shore or as a result of the cleanup?

Waste is collected on the shoreline, and is sampled, tested or otherwise characterized to determine proper handling and management/disposal requirements. Oil-free waste is placed in containers and sent directly to a landfill. Weathered oil and other wastes containing oil are brought to waste staging areas. At the staging areas, liquid wastes are placed in containers designed for the transport of liquid wastes and sent to facilities permitted to manage liquid wastes, either deep well injection facilities or waste water treatment facilities. Solid wastes are sent to permitted landfills.

When oil cannot be easily separated from containment and absorbent booms, personal protective equipment, seaweed or vegetation, these oil-contaminated materials are managed as wastes and sent to an appropriate landfill for disposal.

The approved waste directive requires BP to recover, reuse or recycle as many of the materials collected during cleanup operations, as practicable and in accordance with applicable Federal, State, and local laws. The primary focus has been to collect, contain and remove oil contaminated materials as quickly as possible. Increased reuse and recycling should become more feasible as time progresses with spill cleanup activities and as an understanding of the materials increases.

All staging areas must have spill containment measures in place to prevent spills from impacting the environment.

Certain wastes coming into the staging areas may be identified as recyclable or available to use for energy recovery. When this is the case, such wastes would be taken to the approved facility for recycling or energy recovery.

(4) If tests of oily wastes collected from the Gulf oil spill show hazardous characteristics, how will they be handled?

Through a Directive issued by the Coast Guard in consultation with EPA, BP is required to sample and test oily waste to determine if samples exhibit any of several hazardous characteristics. In addition, EPA is independently sampling and testing waste using the same tests for hazardous characteristics. To date, none of the results from these tests have found that the oily waste samples exhibit hazardous characteristics. If any oily waste samples are found to exhibit hazardous characteristics, EPA will advise the U.S. Coast Guard, as Federal On Scene Coordinator for the Gulf oil spill response, that they direct BP to dispose of the waste in a facility appropriately designed and permitted to manage hazardous waste.

(5) How were landfills chosen to receive waste from the Gulf oil spill?

Solid waste landfills are state-permitted waste management facilities. EPA in coordination with state waste management authorities worked with BP to identify landfills in the Gulf region that had the appropriate design criteria and that were legally permitted to receive the different types of waste generated from the spill. EPA and the States also reviewed the compliance history of each facility. EPA is continuing to work in coordination with the States during the oversight of this response and will conduct site visits of landfills twice a month to complement state oversight activities of landfill operations. Information on EPA's visits to these landfills, including a map of their locations, will be posted on the EPA website at: http://www.epa.gov/bpspill/waste.html
In addition, EPA will continue to work with States to address any complaints regarding the management of waste at any landfills. If any landfill mismanages waste, the waste directive can be used to remove the landfills from receiving any waste.

(6) How were staging areas chosen?

States have and continue to play an integral role in decisions regarding the management of wastes from the Gulf oil spill. States worked with BP, Coast Guard and EPA to identify suitable staging sites for the sorting, collection and packaging of waste. A map showing the location of the waste staging areas is available on the EPA website at: http://www.epa.gov/bpspill/waste.html. EPA is conducting assessments at each staging area once per week.

(7) Where are the staging areas, landfills and disposal facilities for waste?

Staging areas, landfills and disposal facilities that are approved for use are specifically listed in the Federal On Scene Coordinator approved waste management plans, and are posted on the EPA website at: http://www.epa.gov/bpspill/waste.html#plans. Maps of the landfills and staging areas managing waste from the Gulf oil spill will be posted on the EPA website at: http://www.epa.gov/bpspill/waste.html.

(8) What is the role of state governments in the management of oil waste in the Gulf oil spill?

Under the Resource Conservation and Recovery Act (RCRA), Texas, Louisiana, Mississippi, Alabama and Florida all operate solid waste programs that comply with EPA minimum criteria and implement EPA authorized hazardous waste programs and are thus responsible for creating and administering waste management programs within their states. These states are the primary waste management authorities for wastes being collected as part of the Gulf oil spill response. This includes issuing state permits and conducting inspections of waste facilities.

(9) What is EPA's oversight role of BP's efforts to clean up the oily waste on beaches and the shoreline?

Although BP has responsibility for the cleanup of the oil spill, EPA and the states are committed to monitoring BP's waste management activities and taking actions, as necessary, to ensure that the waste is safely and properly managed. After development of the waste management plans, it was determined that further oversight and more specific requirements were needed. The Coast Guard and EPA, with input from the states, therefore issued a Directive to BP on waste management on June 29, 2010. The Directive is available on the EPA web site at: http://www.epa.gov/bpspill/waste.html
The Directive mandates BP's compliance with waste management plans and impose additional, more specific waste and debris handling, sampling and disposal requirements. The Directives are available on EPA's website at: http://www.epa.gov/bpspill/waste.html#directive The U.S. Coast Guard and EPA, in consultation with the states, will hold BP accountable for complying with the Directive, which includes implementing the approved waste management plans.

The Directive creates enforceable requirements, implementation procedures and oversight plans related to BP's handling of waste materials. Among other things, the Directive:

- Provides guidelines for community engagement activities and transparency requirements on information regarding the proper management of liquid and solid wastes;
- Provides EPA and state agency access to facilities or any location where waste is temporarily or permanently stored by BP (access includes allowing the agencies to perform any activities necessary, such as assessments, sampling or inspections);
- Requires compliance by BP with all applicable federal, state and local laws and regulations and to ensure that all facilities where waste is located or placed have obtained all permits and approvals necessary under such laws and regulations; and
- Requires BP to submit to EPA and the Coast Guard specific plans, waste reports and tracking systems for liquid and solid waste, and to comply with those plans and reporting and tracking systems.

EPA is also visiting each waste staging area once per week and each landfill receiving waste from the Gulf oil spill cleanup two times per month. States are also regularly inspecting staging areas and landfills. EPA is also sampling and testing waste from staging areas to determine if samples exhibit any of several hazardous characteristics. To date, none of the results from these tests have found that the oily waste samples exhibit hazardous characteristics. If any oily waste samples are found to exhibit hazardous characteristics, EPA will advise the U.S. Coast Guard, as Federal On Scene Coordinator for the Gulf oil spill response, that they direct BP to dispose of the waste in a facility appropriately designed and permitted to manage hazardous waste.

States have and continue to play an integral role in decisions regarding the management of wastes from the Gulf oil spill. States worked with BP, Coast Guard and EPA to identify suitable sites and facilities for the management of waste. EPA reviewed the proposed sites, looking at the compliance history of each and any community issues. States also worked with EPA on reviewing and commenting on the approved waste management plans that detail how BP will collect, sample and dispose of waste. The approved waste management plans are available on the EPA web site at: http://www.epa.gov/bpspill/waste.html

(10) Is the Directive being implemented? How will it be enforced?

BP is implementing the Waste Management Plans as required under the Directive. The Directives are enforceable orders under Section 311 of the Clean Water Act. In addition, BP is currently finalizing the Waste Tracking/Reporting Plan and the Community Outreach Plan called for by the Directive.

(11) Is the waste being tested? And by whom? What kind of tests are being done? Will the results of tests be posted or available to the public?

BP is required to test oily waste from the Gulf oil spill response using three tests. BP is required to use the Toxicity Characteristics Leaching Procedure (TCLP) to test for volatiles, semi-volatiles and metals. In addition, BP is required to use a Paint Filter Liquids Test to determine if

solid wastes have liquid content. Lastly, liquid waste samples will be subjected to an ignitability test.

In addition, EPA is also collecting independent samples of waste that have been collected at waste staging areas. EPA is testing these samples using the same three tests described above. EPA is posting the results of these tests on the EPA website dedicated to information on the Gulf oil spill at: http://www.epa.gov/bpspill/waste.html.

(12)Where is waste collected from the Gulf oil spill response being stored and disposed and in what amounts?

Wastes are being collected from various areas and stored in staging areas and then sent to appropriately permitted waste management disposal facilities. The information below lists the staging areas and disposal facilities receiving solid and liquid wastes from the Gulf oil spill cleanup.

BP Oil Spill: Staging Area Solid Waste Totals as of July 20, 2010

Staging Area	State	Amount
Venice	LA	2,204 tons
Lafitte	LA	892 tons
Hopedale	LA	1,084 tons
Slidell	LA	443 cubic yards
Grand Isle	LA	4,130 tons
Fourchon	LA	1,392 tons
Cocodrie	LA	682 tons
Montegut (PAC)	LA	601 tons
Dulac	LA	326 tons
St. Mary (Horseshoe)	LA	183 tons
Berwick	LA	10 tons
Theodore	AL	1,339 tons
Foley	AL	6,019 tons
Fort Walton	FL	700 tons
Pensacola	FL	5,144 tons
Panama City	FL	125 tons
Pecan Grove	MS	1,630 tons
Pascagoula	MS	413 tons

BP Oil Spill: Staging Area Liquid Waste Totals as of July 20, 2010

Staging Area	State	Amount
Venice	LA	79,426 BBLS

Lafitte	LA	675 BBLS
Hopedale	LA	7,415 BBLS
Slidell	LA	1,560 BBLS
Grand Isle	LA	16,387 BBLS
Fourchon	LA	60,042 BBLS
Cocodrie	LA	930 BBLS
Montegut (PAC)	LA	0 BBLS
Dulac	LA	0 BBLS
St. Mary (Horseshoe)	LA	0 BBLS
Berwick	LA	0 BBLS
Intracoastal	LA	0 BBLS
Misc	LA	450 BBLS

BP Oil Spill: Landfill Solid Waste Totals as of July 20, 2010

Disposal Facility	**State**	**Amount Disposed**
Tidewater	LA	2,204 tons
Colonial	LA	7,720 tons
Jefferson Parish	LA	225 tons
River Birch	LA	1,406 tons
Jefferson Davis	LA	182 tons
Pecan Grove	MS	1,945 tons
Chastang	AL	1,339 tons
Magnolia	AL	5,636 tons
Springhill	FL	14,623 tons

BP Oil Spill: Facilities Receiving Liquid Waste as of July 20, 2010

Disposal Facility	**State**	**Amount Disposed**
Riverbirch, Inc	LA	9,425 Barrels

Newpark Environmental Services	TX	155,855 Barrels

(13) What kind of outreach is being done to communities receiving oily waste in their landfills?

EPA is committed to providing communities impacted by the Gulf oil spill with timely and useful information about the ongoing cleanup effort. As part of this commitment, EPA, in conjunction with the U.S. Coast Guard, has issued two Directives requiring BP to develop and implement a plan to track and report on waste management. The plan is to include information on the quantities and types of waste managed temporarily or permanently at any facility or location. Under the Directives, BP is required to publicly post this information. In addition, the Directives require BP to develop and implement a community outreach plan, which EPA is currently reviewing. The plan specifically requires BP to address the steps they have taken to minimize the impacts of waste management on surrounding communities. EPA plans to put BP's Waste Tracking Plan and Community Outreach Plan on its Web site in the near future. Separately, EPA had led extensive outreach to Gulf communities. EPA has held community meetings, attended a visit to waste staging area with Gulf community NGOs, participated in a questions and answers at churches, and continues to distribute information on waste management to local communities.

(14) How are solid waste landfills designed and regulated?

Municipal solid waste landfills (MSWLFs) must comply with the federal regulations under the Resource Conservation and Recovery Act, and with any additional state regulatory requirements. States may have regulations that are more stringent or more comprehensive than Federal standards and therefore must be consulted in the disposal process. Below is a list of some of the Federal MSWLF requirements that apply to landfills that receive household waste or conditionally exempt small quantity generator hazardous waste along with other household wastes.

- Location restrictions— these restrictions ensure that landfills are built in suitable geological areas away from faults, wetlands, flood plains, or other restricted areas.
- Composite liners requirements—these include placing a flexible membrane (geomembrane) in the landfill which overlays two feet of compacted clay soil lining the bottom and sides of the landfill. This protects groundwater and the underlying soil from leachate releases.
- Leachate collection and removal systems—these systems sit on top of the composite liner and remove leachate from the landfill for treatment and disposal.
- Operating practices—requirements that include covering waste frequently with several inches of soil help reduce odor; control litter, insects, and rodents; and protect public health.
- Groundwater monitoring requirements—requires testing groundwater wells to determine whether waste materials have escaped from the landfill.

- Closure and postclosure care requirements—include covering landfills and providing long-term care of closed landfills.
- Corrective action provisions—require implementation of procedures for control and clean up of landfill releases and achieves groundwater protection standards.
- Financial assurance—provides funding for environmental protection during and after landfill closure (i.e., closure and postclosure care).

Additional information about landfills is available on EPA's website at: http://www.epa.gov/wastes/nonhaz/municipal/landfill.htm

(15) Are the waste information being tracked?

The Directive issued to BP by the U.S. Coast Guard, in consultation with EPA, requires BP to implement a waste tracking system/reporting plan to include, but not be limited to:

- Development of a uniform tracking system covering all affected states for recoverable product and liquid solid wastes, specifying quantity or volume handled at each location where such product or waste is temporarily (e.g. staging area) or permanently located (e.g. disposal site, recovery facility);
- Reporting of such information to EPA on a daily basis.
- On-line posting of flow charts showing, for each category of recoverable products, and liquids and solid wastes, how such products or wastes are handled and locations where such products or wastes are temporarily (e.g. staging areas) or permanently located (e.g. disposal sites, recovery facilities), and updated within 24 hours of any changes.

(16) Will there be any issues of oil from waste leaching from landfills? What about landfills in a flood plain? Or close to the coast? Or what if a hurricane comes?

Under the Directives issued to BP, oily solid waste must only be sent to state regulated landfills that are specifically permitted to receive such wastes. These landfills must comply with the federal regulations within Subtitle D of the RCRA and additional state regulations, which include design requirements to prevent these wastes from contaminating groundwater.

In the event of a storm or hurricane that threatens waste collection and disposal operations, the U.S. Coast Guard, as the Federal On Scene Coordinator for the Gulf oil spill response, would require BP to cease operations and secure collected wastes. BP will continue to be responsible for any debris contaminated by BP oil. Landfill operators in the area would also implement steps to secure their facilities. These landfills have been subjected to many hurricanes along the coast with few problems. Additional information about landfills is available on EPA's website at: http://www.epa.gov/wastes/nonhaz/municipal/landfill.htm

(18) How are contaminated booms managed? Are they sent to landfills?

There are two types of booms being used: sorbent boom and barrier boom. While barrier boom can be decontaminated and reused, sorbent boom generally is not re-useable. The job of sorbent boom is not to block the oil, but rather to absorb it, so that it can be removed from the water

along with the boom itself. Techniques are used at staging areas to remove oil to the maximum extent possible from booms. Used sorbent booms may be either sent to permitted landfills for disposal or sent to an appropriate facility to be burned as fuel. Barrier boom is intended to channel the oil into areas where it can be skimmed. While barrier boom is intended to be reused, it may at times become damaged to the point that it must be disposed of in a landfill.

(19) Are landfills in the Gulf region being filled up with waste from the Gulf oil spill? Do these landfills have the capacity to accept this waste?

- Solid waste landfills are state-permitted waste management facilities. Based on data provided to EPA from the Gulf states, the landfills receiving waste from the Gulf oil spill have abundant capacity to handle the waste volumes expected from this response. We do not expect that the addition of waste from the Gulf oil spill will significantly shorten the expected life-span of these landfills. Generally, the oily waste (aprox. 94% of the total oily waste volume) that is being disposed in landfills represents less than 7% of the total daily waste accepted by these landfills. At one of the landfills receiving oily waste, the oily waste represents 8-12% of the total daily waste accepted at this landfill.

(21) How can I help with the clean-up?

Volunteers must be properly trained and equipped to assist shoreline response efforts. For volunteer inquiries, visit www.serve.gov/oilspill.

(22) Where can I find more information on EPA's Oversight of BP's Waste Management efforts?

EPA is posting information on the oil spill response on the Agency's website at http://www.epa.gov/bpspill/index.html. The information at this website includes key documents and directives, as well as data from the sampling of air, water, sediment and waste.